

CLAIMS:

1. A roll up door assembly for selectively covering a door space defined by a door frame, comprising:

a flexible sheet having top and bottom edges, a front and a back side and elongate vertical side edge portions of greater thickness than the remaining portion of the sheet, said side edge portions having elongate, vertical, inner edge surfaces that extend substantially perpendicular to said remaining portion when said sheet is unrolled and flat;

a barrel adapted for rotatable mounting above said door frame, said sheet attached to said barrel and being coilable upon said barrel for storage thereupon and selectively extendable downwardly therefrom to extend over the door space during use of the door assembly;

a pair of vertically extending door guides assemblies each adapted for mounting adjacent a respective vertical edge of the door frame, each door guide assembly defining a vertical slot having a vertical opening extending along the length of the slot, each slot being oriented and sized to accept a respective one of said vertical side edge portions for vertical movement therein;

each said door guide assembly having a windbar assembly attached thereto, positioned in a slot narrowing position in which a portion thereof extends over the opening of said slot to narrow said opening such that the narrowed opening has a smaller width than the total thickness of a respective one of said side edge portions; and

biasing means for biasing said windbar assembly to said slot narrowing position with sufficient force to normally hold the respective vertical side edge portion within said slot during use of said door assembly, while permitting the side edge portion to be released from the slot through its opening upon an impact to the sheet.

2. A door assembly as recited in claim 1 wherein each said side edge portion comprises a front side strip and a rear side strip each extending along the respective side edge of the sheet, wherein the front and rear side strips are staggered with respect to each other in the transverse direction of these side strips such that the front and rear side strips do not overlap during coiling

of the sheet on the barrel and thereby assist in the tracking of the sheet when coiled on said barrel.

3. A door assembly as recited in claim 2 wherein both of the side edge portions are covered with a low friction protective wear layer.

4. A door assembly as recited in claim 1 wherein said biasing means is provided by tension spring assemblies securing said windbar assembly to its respective guide assembly.

5. A door assembly as recited in claim 4 wherein each tension spring assembly comprises a threaded rod threadably securing said windbar assembly to said guide assembly at one end of the rod, and having a threadably mounted nut on the other end and a coil spring positioned around the threaded rod between the nut and said guide assembly, the nut being threadably advancable on the rod to selectively compress the spring to create a desired biasing force.

6. A door assembly as recited in claim 1 wherein a horizontal bottom bar is secured across the bottom edge of said sheet.

7. A door assembly as recited in claim 6 wherein said bottom bar comprises a hinge and two bottom bar sections each connected to said hinge and extending in opposite directions from the hinge across the bottom of the sheet and secured thereto;

a strap connected to said bar sections across said hinge, said strap holding said bottom sections in a relative straight orientation; and

strap securing means for securing said strap to said bar sections, said securing means releasing on impact to allow hinging of the bottom sections about the hinge and thereby reduce the possibility of damage to the sheet and any impacting object.

8. A door assembly as recited in claim 7 wherein said strap securing means comprises shear bolts securing said strap to said bar sections, said shear bolts being made to shear upon sufficient impact to said bar.
9. A door assembly as recited in claim 7 wherein said bottom bar includes a flexible tab member extending from an outer end of each bar section, said tab insertable into a respective one of said vertical slots for assisting with guiding said sheet upwardly and downwardly along said one slot, said tab being disengagable from said one slot upon impact to the bottom bar.
10. A door assembly as recited in claim 7 wherein each said bar section comprises a pair of mating angle members secured together and between which is secured the bottom edge of the sheet.
11. A roll up curtain for selectively covering a space defined by a door frame comprising:
 - a flexible sheet of suitable strong material having top and bottom edges, a front surface and a rear surface, and vertical side edge portions; and
 - an elongate front lock strip secured to the front surface and an elongate rear lock strip secured to the rear surface along each vertical side edge portion of the sheet, each of said lock strips extending a substantial distance along its respective side edge portion,
 - said front and rear lock strips being staggered relative to each other in the transverse direction of said lock strips and the sheet.
12. A curtain as recited in claim 11 wherein the top edge of the sheet is secured to a barrel adapted to be rotatably mounted above said door frame, said sheet being coilable upon said barrel for storage thereupon and selectively extendable downwardly therefrom to extend over the door space, said staggered front and rear locking strips being able to track the sheet when said sheet is being coiled upon said barrel, keeping the vertical side edge portions of the sheet rolled in a straight alignment.

13. A curtain as recited in claim 11 wherein said material of the sheet comprises reinforced SBR rubber.

14. A curtain as recited in claim 11 wherein at least said front locking strips each have at least an inner side wall which extends perpendicular to the adjacent surface of the sheet.

15. A curtain as recited in claim 11 wherein low friction wear strips are applied to said vertical side edge portions including said rear lock strips..

16. A curtain as recited in claim 11 wherein a bottom bar assembly is secured to the bottom edge of said curtain, said bottom bar assembly comprising a hinge and two bottom bar sections each connected to said hinge and extending from the hinge across the bottom edge of the sheet in opposite directions;

at least one strap connected to both of said bar sections and extending across said hinge, said at least one strap securing said bar sections in relative straight orientation; and

strap securing means for securing said at least one strap to said bar sections, said securing means releasing on impact to allow hinging of the bottom sections about the hinge and thereby reducing the possibility of damage to the curtain or an impacting object.

17. A curtain as recited in claim 16 wherein said strap securing means comprises shear bolts securing at least one said strap to said bar sections, said shear bolts being made to shear upon sufficient impact to said bar.

18. A curtain as recited in claim 14 wherein said rear lock strips are each secured to said rear surface next to a respective vertical edge of said sheet and said front lock strips are each secured to said front surface at a location spaced from the respective vertical edge of said sheet and inwards of the adjacent rear lock strip.

19. An impact absorbing curtain for selectively covering a space defined by a door frame comprising:

a flexible sheet of suitably strong material having a front surface, rear surface, a top edge and a bottom edge and vertical side edges, including a bottom bar assembly secured to the bottom edge of said sheet,

said bottom bar assembly comprising a hinge and two bottom bar sections each connected to said hinge and extending in opposite directions from the hinge along the bottom edge of the curtain, each bar section being secured to the bottom edge of said curtain;

at least one connecting member connected to both of said bottom bar sections and extending across said hinge, said at least one connecting member securing said bar sections in a relative straight, aligned orientation; and

securing means for connecting said at least one connecting member to said bar sections, said securing means releasing on impact to allow hinging of the bottom sections about said hinge and thereby reduce the possibility of damage to the sheet and an impacting object.

20. A curtain as recited in claim 19 wherein the top edge of the sheet is secured to a barrel adapted to be rotatably mounted above said door frame, said sheet being coilable upon said barrel for storage thereupon and selectively extendable downwardly therefrom to extend over the door space.

21. A curtain as recited in claim 19 wherein said securing means comprises shear bolts securing said at least one connecting member to said bar sections, said shear bolts being made to shear upon sufficient impact to said bar.

22. A curtain as recited in claim 21 wherein each said bar section comprises a pair of horizontally extending mating angle members secured together and between which is sandwiched the bottom edge of said sheet.

23. A bottom bar assembly for a roll-up curtain for a door arrangement, said bar assembly comprising:

two elongate bottom bar sections adapted for attachment to a bottom edge of said roll-up curtain;

a hinge pivotably connecting adjacent ends of said bottom bar sections so that said bar sections can extend in opposite directions from said hinge and are aligned with each other during normal use of the bar assembly;

at least one connecting member connected to both of said bottom bar sections, extending across said hinge, and securing said bottom bar sections so that they form a relatively straight bottom bar adapted to extend along said bottom edge,

wherein said at least one connecting member is able to disconnect from at least one of said bottom bar sections upon a sufficiently large impact on said bottom bar assembly during use thereof, this disconnection allowing one of said bar sections to pivot about said hinge relative to the other bar section and thereby reduce the possibility of significant damage to said door arrangement.

24. A bottom bar assembly according to claim 23 wherein said bottom bar sections are substantially equal in length and said hinge is centrally located on the bar assembly.

25. A bottom bar assembly according to claim 23 wherein said at least one connecting member is a rigid strap which is connected to each of said bar sections by a shear bolt.

26. A bottom bar assembly according to claim 25 wherein there are two of said connecting members each extending along a respective longitudinal side of the bar assembly so that said connecting members are located on opposite sides of said curtain during use thereof.

27. A bottom bar assembly according to claim 23 wherein each bar section has a plastic tab member mounted at an outer end thereof and adapted to extend into a guide slot formed by one vertical side of said door arrangement during use of the curtain and bar assembly.